Permit No.: MTR040000

Page 1

# Fact Sheet Montana Pollutant Discharge Elimination System (MPDES) General Permit for

Storm Water Discharges Associated with Small Municipal Separate Storm Sewer System (MS4s)

PERMITTEES: Various Public Entities

MPDES Permit Number: MTR040000

# I. Status of Permit

MPDES permit MTR040000 is a new General Permit for Storm Water Discharges Associated with Small Municipal Separate Storm Sewer Systems (MS4s). MPDES permitting of these discharges is required to be implemented nationally through the federal Environmental Protection Agency (EPA), or delegated states and tribes, as Part of EPA's Storm Water Phase II requirements. Complete EPA Phase I and II requirements have recently been incorporated into the Administrative Rules of Montana (ARM), Title 17, Chapter 30, Subchapters 11, 12, and 13. These rules became effective on February 14, 2003.

The Department is not approving individual applications or Storm Water Management Programs for designated facilities (Appendix I) under the General Permit at this time. After a final small MS4 General Permit is issued, facilities will be required to update or submit completed applications in accordance with the General Permit. In accordance with ARM 17.30.1341(4) and the Montana Environmental Policy Act (MEPA) the Department will issue an authorization or notify the applicant that the source does not qualify for authorization under the general permit within 30 days of receipt of a completed application. The Department will provide an opportunity for additional public comment on these individual authorizations, in accordance with ARM 17.30.1373.

# II. <u>Description of Discharge and Discharging Facilities</u>

This General Permit is applicable to the discharge of storm water associated with small MS4s within the boundaries of the State of Montana, including those on state, federal, or private lands. An "MS4" is defined in ARM 17.30.1102(13) and a "small MS4" is defined in ARM 17.30.1102(23). Briefly, an MS4 is typically a conveyance or system of conveyances owned by a state, city, town, or other public entity that discharges to state waters, and is designed or used for collecting or conveying storm water and is not part of a publicly owned sanitary sewer system.

The federal phase II rules expanded the scope of storm water permitting to include the small MS4s, which include all MS4s that are not already designated and regulated as a medium (at least 100,000 people) or large (at least 250,000 people) MS4 under EPA's Phase I requirements. Montana has no medium or large MS4s. The phase II federal rules do not require that all MS4s serving populations of less than 100,000 be regulated.

Permit No.: MTR040000

Page 2

For "urbanized areas" as defined by the U.S. Census Bureau (data/maps indicating areas that have a population over 50,000 and an average population density of 1,000 people per square mile), small MS4s within this area require MPDES permit coverage. Within Montana, these urbanized areas include the City of Billings, portions of Yellowstone County outside the City of Billings, the City of Missoula, portions of Missoula County outside the City of Missoula, the City of Great Falls, and portions of Cascade County located outside the City of Great Falls (including Malmstrom AFB). Phase II rules require these jurisdictions to obtain MPDES permit coverage for small MS4s within the mapped "urbanized area".

For areas with a population below 50,000, Phase II requires States to establish designation criteria for use in designating which small MS4s must develop storm water management programs, and the federal rules provide suggested criteria for that purpose. Also, the federal requirements state designation criteria must be developed to "evaluate whether a storm water discharge results in or has the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts". Based on federal requirements, these designation criteria must be, at least initially, applied to cities with a population of at least 10,000. Using this federal designation criteria rationale, the Department has determined that municipalities in Montana with a population of 10,000 and greater have the potential to affect water quality as stated above. Consequently, and in addition to the three urbanized areas stated above, municipalities designated for small MS4 permitting are the City of Helena, the City of Butte, the City of Bozeman, and the City of Kalispell. This was accomplished through a "small municipal separate storm sewer system" definition in ARM 17.30.1102(23) which lists small MS4s in the aforementioned cities and surrounding areas. This rule definition also includes other potential designated areas from ARM 17.30.1107, and includes municipal systems at military bases, large educational, hospital or prison complexes, and highways and other thoroughfares. Consequently, Malmstrom AFB, University of Montana - Missoula, Montana State University -Bozeman, and Montana Department of Transportation highways require small MS4 General Permit coverage.

ARM 17.30.1111, and consequently the General Permit, contains a provision to credit and allow the continued use of qualifying local programs if they show that they already have a storm water control program that meets the minimum requirements set out in the federal phase II rules.

ARM 17.30.1107 also contains designation criteria and procedures for designation of small MS4s in addition to those stated above. These designation criteria would typically be applied on an as needed basis to small MS4s not regulated, essentially those in municipalities with a population under 10,000 people. Criteria to be used in this designation are based on federal requirements, and are very similar to federal designation criteria. Criteria include discharge(s) to listed impaired waterbodies on the most recent 303(d) list, high growth or growth potential, high population density, contiguity to an urbanized area, and significant contribution of pollutants to surface waters. A small MS4 may also be designated if it is interconnected with a

Permit No.: MTR040000

Page 3

regulated small MS4. These procedures are necessary to allow the Department to address municipal storm sewer pollution problems in special circumstances.

ARM 17.30.1107 also contains procedures for designation of small MS4s in response to petitions, and for changing a determination if circumstances change or if new information becomes available. This procedure is necessary to allow the Department to respond to changing circumstances or new information.

Based on federal requirements, ARM 17.30.1107 also contains two sets of procedures for waiving small MS4 permit coverage within "urbanized areas" for jurisdictions with a population under 1,000, and 10,000, if certain conditions are met. These waivers provide an off-ramp for relatively small MS4s that are located within the "urbanized area". Pursuant to section 75-5-605(2) MCA of the Montana Water Quality Act (MWQA), the discharge of wastes to state waters without a current permit authorization from the Department is prohibited. Consequently, issuance of this General Permit will regulate the discharge of potential pollutants in storm water runoff from all designated small MS4s through an authorization to discharge under the General Permit.

Characteristic effluent discharge from small MS4s has been determined to pose a potential threat to receiving state waters. Studies performed over the past twenty years have indicated urban storm water runoff from residential, commercial, and light industrial areas carried higher than normal annual loadings of total suspended solids (TSS), chemical oxygen demand (COD), total lead, total copper, other metals, oil & grease, nutrients, other organic chemicals/compounds, and microorganisms (including fecal coliform). Pollutant concentrations may vary considerably with respect to events and location.

Table 1 gives pollutant concentrations of storm water runoff from urban commercial and residential areas (source *EPA Environmental Impacts of Stormwater Discharges: A National Profile*, published June 1992). These data are based on results from the Nationwide Urban Runoff Program (NURP), and does not represent pollutant contributions from illicit connections, spills, industrial activities, or dumping (such as litter).

Permit No.: MTR040000

Page 4

Table 1: Storm Water Characteristic Effluent from Small MS4s

	Median	90 <sup>th</sup>	Montana Water Quality
Parameter, units	Concentration	Percentile	Standards (applicable to
			receiving surface waters not
			including ephemeral streams)
Total Suspended Solids, mg/L	125	390	No Increase, see ARM
			17.30.623(1)(f)
Biological Oxygen Demand,	12	20	Not Available <sup>(1)</sup>
mg/L			
Chemical Oxygen Demand,	80	175	Not Available <sup>(1)</sup>
mg/L			
Total Phosphorus, mg/L	0.41	0.93	Nutrient, see ARM
-			17.30.637(1)
Total Nitrogen, mg/L	2.00	4.45	Nutrient, see ARM
			17.30.637(1)
Total Copper, mg/L	0.040	0.120	0.0052 mg/L @ 50 mg/L
			hardness <sup>(2)</sup>
Total Lead, mg/L	0.165	0.465	0.0032 mg/L @ 100 mg/L
			hardness <sup>(2)</sup>
Total Zinc, mg/L	0.210	0.540	0.067 mg/L @ 50 mg/L
_			hardness <sup>(2)</sup>

(1) Standard based on dissolved oxygen

(2) Source: DEQ Circular WQB-7, January 2002

Additionally, substantial technical and storm water quality data justifying EPA's Storm Water Phase II permitting requirements for small MS4s may be found in another EPA document entitled Storm Water Discharges Potentially Addressed by Phase II of the National Pollutant Discharge Elimination System Storm Water Program – Report to Congress, published March 1995.

Data pertaining to "Oil and Grease" concentrations in storm water runoff has also been presented in the aforementioned EPA literature. Results are broken down into 31 different industrial sectors, many of which could typically be found within an urban area, but no overall NURP data was presented for use in Table 1. The average median Oil & Grease concentration for these 31 industrial sectors is 1.07 mg/L. However, this concentration does not include other potentially significant sources of Oil & Grease within these urban areas, such as that from vehicles.

#### III. Coverage

Pursuant to 75-5-402, MCA and requirements found in ARM, Title 17, Chapter 30, Subchapters 11, 12, and 13, the Department regulates storm water discharges from small MS4s. ARM 17.30.1105(1)(d) requires MPDES permit coverage for small MS4s that are identified in ARM 17.30.1102(23) or designated pursuant to ARM 17.30.1107.

Permit No.: MTR040000

Page 5

# IV. Exclusions

The Department may deny an application for discharge under General Permit MTR040000 under the provisions of ARM 17.30.1341(4)(a), which include the following.

- A. The specific source applying for authorization under the General Permit appears unable to comply with:
  - 1. Effluent limitations or other terms and conditions of the permit,
  - 2. Water quality standards established pursuant to 75-5-301, MCA, and ARM 17.30.635,
  - 3. Prohibition of any discharges to which the regional administrator has objected to in writing.
- B. The storm water discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in this MPDES General Permit.
- C. The MPDES permit or authorization for the same operation has previously been denied or revoked.
- D. The discharge sought to be authorized under a MPDES general permit is also included within an application or is subject to review under the Major Facility Siting Act, 75-20-101, *et seq.*, MCA.
- E. The point source is, or will be, located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications adopted under 75-5-301, MCA, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

#### V. Receiving Waters and Applicable Standards

Small MS4s regulated by this General Permit cover discharge of storm water to state waters, as defined in 75-5-103, MCA. "State waters" means a body of water, irrigation system, or drainage system, either surface or underground. The term "state waters" does not apply to: ponds or lagoons used solely for treating, transporting, or impounding pollutants; or, irrigation waters or land application disposal waters when the waters are used up within the irrigation or land application disposal system and the waters are not returned to state waters.

New or increased sources (ARM 17.30.702(16)), must comply with Montana's Nondegradation Policy [75-5-303 MCA], and rules (ARM 17.30.701 et. seq.). Based on 75-5-306 MCA, the Department has determined that issuance of a discharge permit to an existing source does not

Permit No.: MTR040000

Page 6

require review under Montana's Nondegradation Policy. Monitoring requirements contained in the General Permit will define the baseline condition for purposes of nondegradation.

Refer to Attachment A for a table summarizing small MS4 storm water discharge permit applicants, receiving surface water names, respective water use classifications, and respective 303(d) listed waterbody information.

# VI. Proposed Effluent Limitations and Conditions

Section 402 of the Montana Water Quality Act authorizes the Department to regulate the discharges of sewage, industrial and other wastes into state waters. Pursuant to ARM 17.30.1201, the Department is required to establish effluent limitations, treatment standards, and other requirements for point sources discharging wastes to state waters. The discharge of sewage or industrial wastes is prohibited in the General Permit.

ARM 17.30.1111(5) requires the small MS4 to develop, implement, and enforce a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the federal Clean Water Act. The SWMP must include six minimum control measures (see Part C below). Also, in ARM 17.30.1111(5)(a), it states "For purposes of this rule, narrative effluent limitations requiring implementation of BMPs are the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the maximum extent practicable) and to protect water quality. Implementation of BMPs consistent with the provisions of the SWMP required pursuant to this rule and the provisions of the permit shall constitute compliance with the standard of reducing pollutants to the maximum extent practicable".

In developing conditions in the General Permit, particularly those with respect to the SWMP in Part II, the Department used the March 28, 2002 Model Small MS4 General Permit provided by the EPA as guidance.

# A. Technology Based Effluent Limits

As stated in the MWQA it is not necessary that wastes be treated to conditions purer that the receiving waters as long as minimum treatment requirements have been set [75-5-306 MCA]. In the absence of these limits, and due to the requirements of ARM 17.30.1110(5), the Department has concluded that the most prudent, reasonable land, soil and water conversation practices, to protect state waters will be achieved through the development, implementation, and enforcement of a SWMP. This SWMP will address the six minimum control measures, including Best Management Practices (BMPs) and measurable goals for each minimum control measure (discussed in Part C below). The Department will be using the EPA menu of BMPs that addresses measurable goals for each minimum control measure.

Permit No.: MTR040000

Page 7

#### B. Water Quality Based Effluent Limits

The Montana Water Quality Act requires that permits issued pursuant to Title 17, Chapter 30, Subchapter 13 comply with the Montana surface water quality standards, (Subchapter 6). Based on Montana surface water quality standards, the degree of waste treatment required will be to: "prevent increases above naturally occurring concentrations of sediment, or suspended sediment, settleable solids, oils, or floating solids, which or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife" (ARM 17.30.621 through 629). ARM 17.30.637 requires that no wastes may be discharged which violates any water quality standard. Water quality standards for indicator parameters related to other more prominent potential pollutants are stated in the last column of Table 1.

As substantiated by ARM 17.30.1111(5), it is the Department's position that Montana's surface water quality standards can be maintained for discharges from municipalities (small MS4s) through water quality based controls, implemented with BMPs through an iterative process. The General Permit requires a SWMP to be developed, implemented, and enforced such that certain minimum control measures are addressed including measurable goals. Through this effort, BMPs will help to eliminate or minimize the migration of pollutants to surface waters (ARM 17.30.637(7)). In addition, permittees will be prohibited from discharging non-storm water (i.e. process wastewater) under the General Permit, with the exception of allowed non-storm water discharges as provided for in ARM 17.30.1111(6)(c)(iii). This exception to the non-storm water discharge prohibition requires the permittee to address the following categories of non-storm water discharges or flows only if it identifies them as a significant contributor of pollutants to the small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined in ARM 17.30.1102(8)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, and discharges or flows from fire fighting activities.

# C. Special Conditions

Conditions pertaining to the Small MS4 General Permit will be based on existing regulations in ARM Title 17, Chapter 30, Subchapters 11 and 13. Most conditions unique to this particular General Permit will come from ARM 17.30.1111. The most significant special condition is the requirement to develop, implement, and enforce the SWMP, as referred to above. Based on ARM 17.30.1111(5)(a), the Department will require this SWMP to be fully implemented by the expiration date of this General Permit for regulated small MS4s which have been designated through ARM 17.30.1102(23) and initially

Permit No.: MTR040000

Page 8

submitted an application in March 2003. This SWMP must address the following six minimum control measures as provided for in ARM 17.30.1111(6):

- 1) Public education and outreach on storm water impacts;
- 2) Public involvement/participation;
- 3) Illicit discharge detection and elimination;
- 4) Construction site storm water runoff control;
- 5) Post-construction storm water management in new development and redevelopment; and,
- 6) Pollution prevention and good housekeeping for municipal operations.

In order to initiate the development and implementation of a SWMP, the application must include the following as provided for in ARM 17.30.1111(2):

- 1) A description of the BMPs that the small MS4 will implement for each of the six storm water minimum control measures;
- 2) Identification of the measurable goals for each of the BMPs including, as appropriate, the months and years in which the small MS4 will undertake required actions, including interim milestones and the frequency of the action; and
- 3) The person or persons responsible for implementing or coordinating the SWMP.

If applicants cannot provide the information required in ARM 17.30.1111(2) with the initial application, the General Permit will contain a Compliance Schedule which allows permittees to submit more detailed information in the 2005 calendar year annual report. ARM 17.30.1111(14) requires annual reports, which update and elaborate on the progress of developing and implementing the SWMP, to be submitted to the Department by January 28th following each calendar year of active General Permit coverage. Other requirements contained in ARM 17.30.1111 will be built into the General Permit and include those pertaining to sharing responsibilities for the SWMP, reporting & records retention, potential co-permitting of small MS4s under a single permit authorization, and elaboration of requirements for each of the six minimum control measures.

#### D. Standard Conditions

Standard Conditions in General Permit MTR040000 include all pertinent requirements listed in ARM 17.30.1342. A listing of all Standard Conditions pertaining to all MPDES permits will be included in the General Permit.

# VII. Effluent Monitoring and Reporting Requirements

A. Storm Water Discharge Monitoring

Permit No.: MTR040000

Page 9

1. The "power to require monitoring" is granted to the DEQ through 75-5-602 MCA, and is further clarified through ARM 17.30.1351(2). Analytical monitoring (sampling, testing, evaluating, reporting, etc.) for small MS4s covered by this General Permit will be required only for small MS4s owned or operated by the city governments associated with Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula. Monitoring will be performed within the city limits for each of these.

The Department reserves the right to require additional storm water sampling, testing, and reporting on a case-by-case basis. Factors which may trigger additional monitoring requirements could include, but are not limited to: atypical discharges into the small MS4; SWMP development, implementation, and enforcement effectiveness; storm water quality issues; potential contamination issues; historical issues; compliance issues; new requirements; or other water quality issues.

- 2. Monitoring frequency will be semi-annually (two times per year). For each half-year period, each of the identified small MS4s above will be required to sample one of the relatively largest (based on flow or geographic area) representative discharges from a relatively commercial/industrial area, and one from a relatively residential area, within their permitted geographic area.
- 3. Based on the historical effluent characteristics for existing permitted storm water discharges, the NURP storm water quality study data presented in various EPA publications (see Table 1 above), and experience within the bureau regarding performance of BMPs in protecting state waters, sampling and testing for the parameters listed in Table 2 will be required.

Permit No.: MTR040000

Page 10

Table 2. Small MS4 Effluent Monitoring Requirements

Parameter <sup>(1) (2)</sup>	Frequency	Type <sup>(3)</sup>	
Total Suspended Solids (TSS), mg/l	Semiannual	Grab or	
		Composite	
Chemical Oxygen Demand (COD),	Semiannual	Grab or	
mg/l		Composite	
Total Phosphorus, mg/L	Semiannual	Grab or	
		Composite	
Total Nitrogen, mg/l	Semiannual	Grab or	
		Composite	
pH, standard units	Semiannual	Instantaneous	
Copper, mg/l	Semiannual	Grab or	
		Composite	
Lead, mg/l	Semiannual	Grab or	
		Composite	
Zinc, mg/l	Semiannual	Grab or	
		Composite	
Estimated Flow, gpm	Semiannual	Instantaneous <sup>(4)</sup>	
Oil and Grease <sup>(5)</sup> , mg/l	Semiannual	Grab	

- (1) Detection limits are pursuant to levels defined in WQB-7.
- (2) Total recoverable methods to be used on all metals.
- (3) See Definitions in Part V of the permit.
- (4) Estimated flow rates are appropriate in cases where measurement gauges are not installed.
- (5) Hexanes extraction (EPA Method 1664A).

# B. Reporting Requirements

Analytical monitoring data will be reported to the Department using the Department's Discharge Monitoring Report Form (DMR). Semi-annual sampling will be reported by January 28<sup>th</sup> and July 28<sup>th</sup> of each calendar year. Also, the Department will require permittees to evaluate their storm water quality as a part of each reporting cycle, and to compare the data with the median values of the NURP data in Table 1. This comparison of data with NURP median values is essentially the same approach as the benchmark monitoring used for industrial and mining storm water discharges in other general permits.

During this initial General Permit cycle of five years, the purpose of this monitoring effort is to obtain some data in order to characterize Montana's urban area storm water quality relative to the NURP study data, establish a baseline, and to monitor the effectiveness of BMPs.

Permit No.: MTR040000

Page 11

# C. Instream Monitoring

There are no requirements for instream monitoring under this permit.

# D. Other Monitoring

All small MS4s permittees covered under this General Permit will be required to submit an annual report to the Department by January 28th of each year. This annual report is required in ARM 17.30.1111(14). The annual report will address compliance with permit conditions, progress and/or changes with respect to measurable goals and/or implementation of BMPs, future plans, and other related reporting issues.

# VIII. Mixing Zones

Due to the intermittent nature of storm water discharges and the lack of specific data on the characteristics of urban storm water and receiving waters, the Department is not authorizing mixing zones at this time. If monitoring data indicates a mixing zone is necessary, the General Permit may be modified accordingly.

# IX. Nondegradation

New or increased sources (ARM 17.30.702(16)), must comply with Montana's Nondegradation Policy [75-5-303 MCA], and rules (ARM 17.30.701 et. seq.). Based on 75-5-306 MCA, the Department has determined that issuance of a discharge permit to an existing source does not require review under Montana's Nondegradation Policy. Monitoring requirements contained in the General Permit will define the baseline condition for purposes of nondegradation.

# X. Total Maximum Daily Loads (TMDL)

On September 21, 2000, a U.S. District Judge issued an order stating that until all necessary total maximum daily loads (TMDLs) under Section 303(d) of the Clean Water Act are established for a particular water quality limited segment (WQLS), the State is not to issue any new permits or increase permitted discharges under the MPDES program. The order was issued in the lawsuit *Friends of the Wild Swan v. U.S. EPA, et al.*, CV 97-35-M-DWM, District of Montana, Missoula Division. The DEQ finds that the issuance of this General Permit does not conflict with the order, because: (1) it does not allow any new or increased discharges, (2) the permit contains an effluent limitation which prohibits storm water discharges that cause or contribute to a violation of water quality standards, and (3) the permit will provide regulatory controls resulting in a net improvement to the storm water quality of existing small MS4 discharges.

# XI. Procedure for Coverage under the General Permit

Permit No.: MTR040000

Page 12

- A. ARM 17.30.1102(23) and ARM 17.30.1107 provide definitions, designation criteria, and determining factors for whether a small MS4 is eligible for coverage under this permit.
- B. ARM 17.30.1110 and 1111 provide application requirements for obtaining coverage under this Small MS4 General Permit.

# XII. References/Information Sources

- (1) Administrative Rules of Montana Title 17, Chapter 30 et al
- (2) Montana Code Annotated Title 75, Chapters 5, Subchapters 1 through 6
- (3) Code of Federal Regulations 40 CFR Parts 122 through 133
- (4) EPA Environmental Impacts of Stormwater Discharges: A National Profile, published June 1992; EPA Document No. 841-R-92-001
- (5) Storm Water Discharges Potentially Addressed by Phase II of the National Pollutant Discharge Elimination System Storm Water Program Report to Congress, published March 1995; EPA Document No. 833-K-94-002
- (6) Draft Environmental Protection Agency NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems, dated March 28, 2002

Prepared by: Brian Heckenberger, October 2004.

ATTACHMENT A - Small MS4 Storm Water Discharge Permit Applicant Receiving Surface Water Information

Permit Application Authorization Number	Permit Applicant or Co- Applicant Organization	Date Permit Application Received	Number of Outfalls (Named or Perennial Receiving Surface Waters)	Receiving Surface Water Name(s)	Water Use Classification	1996 303(d) Listed Waterbody (Yes/No)	Probable Cause(s) For 1996 303(d) Listing (see number-code key)	2002 303(d) Listed Waterbody (Yes/No)	Probable Cause(s) For 2002 303(d) Listing (see number-code key)
MTR040001	■ City of Billings	3/7/03	7	Alkali Creek	C-3	No		No	
	■ Yellowstone County			Blue Creek	B-2	No		No	
■ Montana Departr	<ul> <li>Montana Department of Transportation (MDT)</li> </ul>			Canyon Creek	B-2	Yes	10	No	
				Cove Creek	B-2	No		No	
				Five-Mile Creek	C-3	No		No	
				Hogan's Slough	B-2	No		No	
				Yellowstone River	B-2,C-3	Yes	16,8,7	Yes	4
MTR040002	■ City of Bozeman	3/7/03	4	Spring Creek	B-1	No		No	
	■ Montana State University			Bozeman Creek	B-1	No		No	
	■ MDT			Bridger Creek	B-1	Yes	13	No	
				East Gallatin River	B-1,B-2	Yes	13,2,4,6,15	No	
MTR040003	■ City of Helena	3/10/03	2	Prickly Pear Creek	B-1	Yes	13,11,4	Yes	17,18,13,2,19,10, 20,21,11,4,6,7
				Tenmile Creek	B-1	Yes	13,11,4,6,15	Yes	17,22,23,11,4,24, 25,13,26,2,6
MTR040004	<ul><li>City of Great Falls</li><li>Cascade County</li><li>MDT</li></ul>	3/10/03	3	Missouri River	B-1,B-2	Yes	13,11,2,4,6,8,9,14	Yes	27,25,18,13,26,2, 4,19,6,10,17,22,2 1,23,11,3,28,29,8, 30
				Sun River	B-3	Yes	13,2,4,16,8,10	Yes	20,13,4,19,6,10,1 8,2,31,32,8
				Sand Coulee Creek	B-1	Yes	11,15	Yes	23,11,16,24
MTR040005	■ City of Kalispell	3/11/03	4	Ashley Creek	B-1	Yes	1,2,3,4,5,6,7	Yes	18,13
	■ MDT			Stillwater River	B-2	Yes	2,5,6,8,10	Yes	11,33,2,4,15,31,6, 8
				Whitefish River	B-2	Yes	2,5,6,8,10	Yes	11,34,2,35,28,12, 10
				Spring Creek	B-1	Yes	3,4,8,9	No	
MTR040006	■ City of Butte	3/10/03	5	Blacktail Creek	B-1	No		No	
	■ MDT			Silver Bow Creek	I,B-1	Yes	11,2,3,4,12,6,7	Yes	11,2,4,6
				Basin Creek	B-1	No		No	
				Sand Creek	B-1	No		No	
			Grove Gulch Creek	B-1	No		No		
MTR040007	<ul><li>City of Missoula</li><li>Missoula County</li></ul>	3/12/03	6	Clark Fork River	B-1	Yes	11,2,3,9	Yes	27,22,13,2,4,6,25, 18,11,3,19
<ul> <li>University of Montana</li> </ul>			Bitterroot River	B-1	Yes	2,3,4,10	Yes	13,33,2,4,6,10	
	■ MDT			Pattee Creek	B-1	No		No	
				Rattlesnake Creek	B-1	Yes	6,10	Yes	13
				Grant Creek	B-1	Yes	13,4,6,10	No	
				Butler Creek	B-1	No		No	
MTR040008	■ Malmstrom Air Force Base	3/13/03	1	Missouri River	B-3	Yes	13,11,2,14,6,8	Yes	27,25,18,13,26,2, 4,19,6,10,17,22,2 1,23,11,3,28,29,8, 30
MTR040009	09 ■ MDT within City of Helena Limits	3/14/03	2	Prickly Pear Creek	B-1	Yes	13,11,4	Yes	17,18,13,2,19,10, 20,21,11,4,6,7
				Tenmile Creek	B-1	Yes	13,11,4,6,15	Yes	17,22,23,11,4,24, 25,13,26,2,6

Key For 303(d) List Probable Cause Number Codes Used In Table
Noxious aquatic plants
2 Nutrients
<ul><li>3 Organic enrichment / low DO</li><li>4 Other habitat alterations</li></ul>
5 Pathogens
6 Siltation
<ul><li>7 Unionized ammonia</li><li>8 Suspended solids</li></ul>
9 Taste and odor
10 Thermal modification
<ul><li>11 Metals</li><li>12 Priority organics</li></ul>
13 Flow alteration
14 Other inorganics
15 pH
<ul><li>16 Salinity / TDS / chlorides</li><li>17 Arsenic</li></ul>
18 Dewatering
19 Riparian degradation
<ul><li>20 Bank erosion</li><li>21 Fish habitat degradation</li></ul>
22 Copper
23 Lead
24 Zinc
25 Cadmium 26 Mercury
27 Algal growth / chlorophyll a
28 PCBs
<ul><li>29 Selenium</li><li>30 Turbidity</li></ul>
31 Phosphorus
32 Salinity/TDS/sulfates
33 Nitrate
<ul><li>34 Nitrogen</li><li>35 Oil and grease</li></ul>
55 On and grease